IBS the journal of college radio

MARCH, 1974

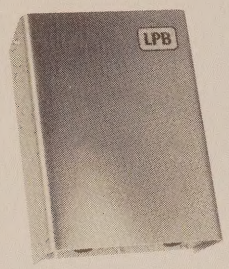



# INFORTAINMENT '74

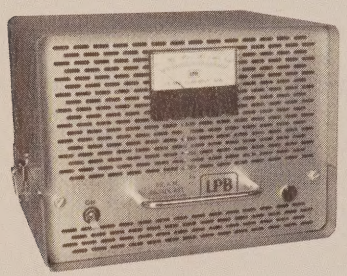
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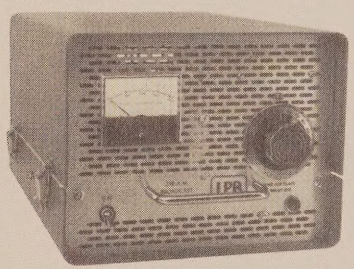
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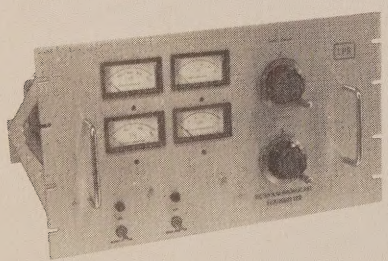
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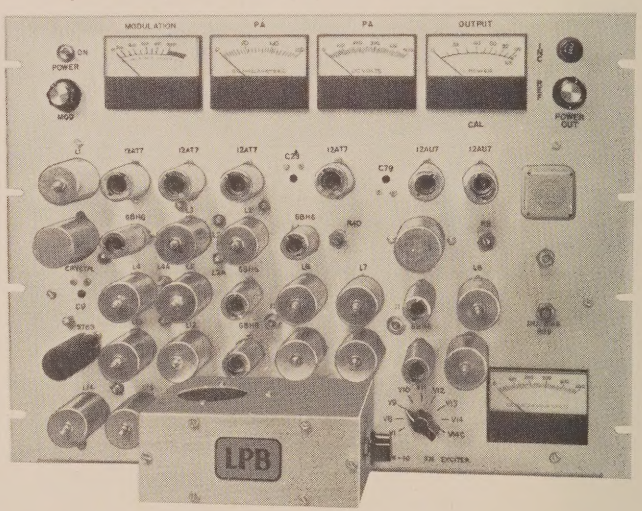
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IBS
the journal of college radio

MARCH, 1974
VOL. 11, NO. 6

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**ON THE COVER:**
**The mainstay of any station, the record library. (Photo courtesy of WJRH Radio —see feature on page 4).**

**IBS, INC.**
President
DON GRANT

# in this issue:

## ARTICLES

STATION FEATURES HAVE RISEN FROM THE GRAVE...
**That's right, boys and girls ... due to popular demand, and also because somebody finally sent some, we've got two features on campus radio stations.**
WJRH . . . . . 4
WARP . . . . . 6
INFORTAINMENT '74 . . . . . 16
**Actually, this is pretty much the same thing we ran last month, but, anything to fill space.**

AND OTHER STORIES

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MUSIC INDUSTRY DEPARTMENT . . . . . 14
NEW PRODUCTS . . . . . 20
SIGN OFF . . . . . 28

Intercollegiate Broadcasting System, Inc.
**Central State University**
**Department of Oral Communications Edmond, Oklahoma 73034**

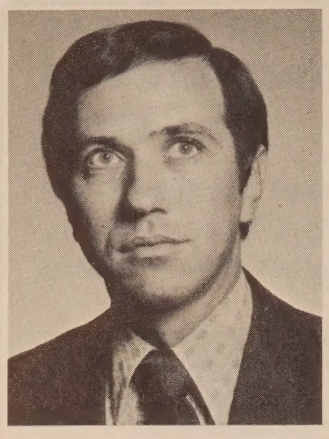
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# Publisher's Report

JACK DESKIN

The Federal Communications Commission has reaffirmed its position on low power communication devices. Stating that the "... intent of Part 15 is to provide the radio enthusiast with an opportunity to experiment with radio, and to entertain friends or neighbors within a very limited communication range," the Commission denied a petition from Western Pennsylvania Youth Radio to waive the technical restrictions imposed by Part 15 on input power and antenna length for low power radio stations.

Victor H. Fischer, a spokesman for the group, petitioned the FCC in efforts to furnish a noncommercial educational radio service to Pittsburgh, Pa., by using equipment which did not comply with Part 15 of the Commission's rules and regulations.

Prior to the petition requesting a waiver, Western Pennsylvania Youth Radio was illegally operating a six-watt transmitter and carrying on a low power broadcast operation. This particular operation resulted in a complaint being filed with the FCC and subsequently, investigated by the Commission's Field Operations Bureau. After ceasing operations, WPYR sought legal status by requesting a license to operate a noncommercial education community service radio station.

The Commission turned down this request saying that the proposed operation was not eligible for licensing under any of the provisions set out in the Commission's Rules for a broadcast station.

This prompted WPYR to request the waiver of Part 15.

Part 15 of the Rules, "... permits operation in the AM Broadcast Band of a miniature transmitter, called a Low Power Communication Device, without an individual license provided that the input power to the device does not exceed 100 milliwatts and that the total length of the transmission line plus the antenna does not exceed 10 feet." In addition, the rules, "... limit the level of emissions on spurious frequencies, and the amount of RF energy that may be conducted into public utility power lines." These technical specifications, state the FCC, are designed to limit communication range for the protection of authorized radio services from harmful interference, and yet are considered to be sufficiently lenient that a reasonable operating range is provided for a low power communication device.

"Moreover," added the Commission, "regardless of strict adherence to the technical limitations in Part 15, a Low Power Communication Device is permitted to operate on a sufferenace basis only, and in the event harmful interference is caused to any licensed radio station, operation must cease promptly. Because of this overriding noninterference condition and the severe technical limitations imposed, Part 15 cannot be used to provide a regular broadcasting service."

The Commission has not granted waivers of Part 15 rules in the past and never intended that Part 15 be used to establish a low power broadcast facility to service an entire community.

Since 1936, low power broadcast stations, commonly referred to as carrier-current, have been regulated along with phonograph oscillators and garage door openers. It is presumed that carrier-current will remain in this category for several more years.

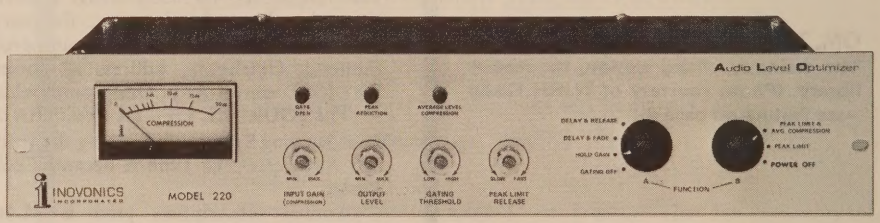

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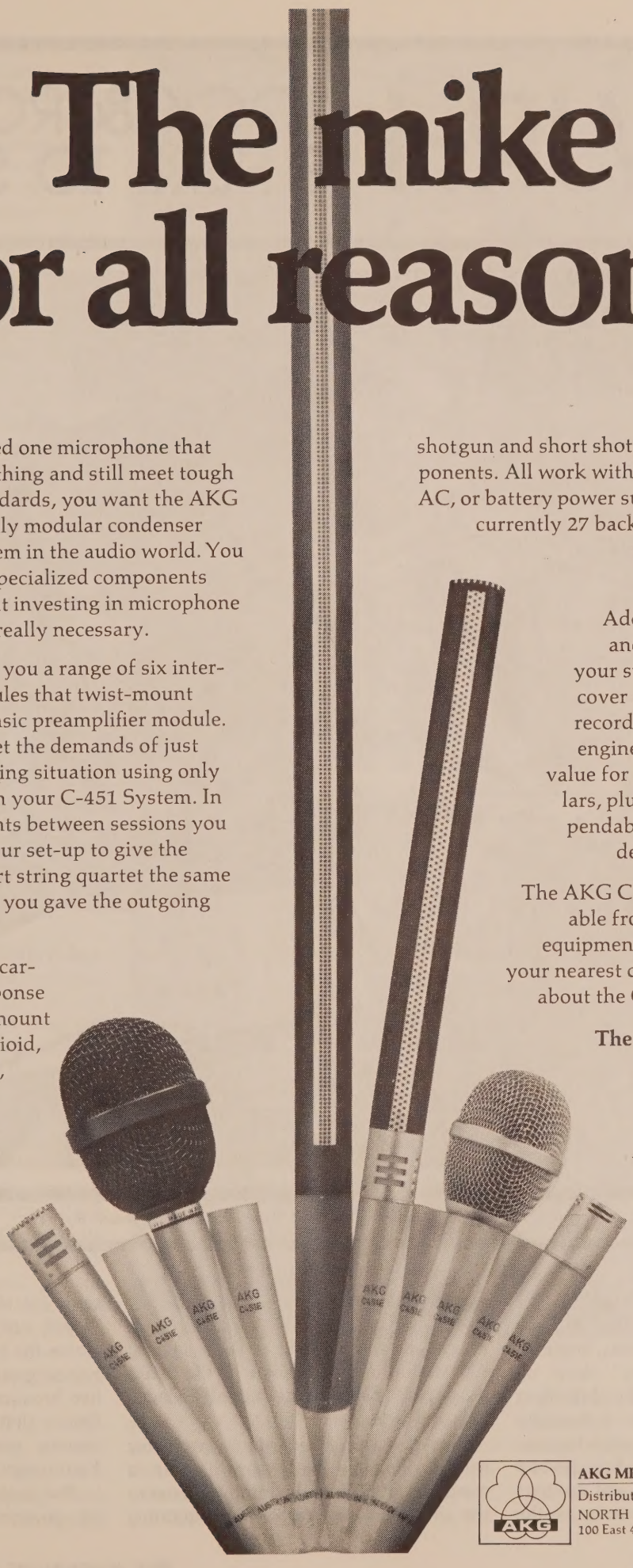
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# WJRH ROCK & ROLL IS HERE TO STAY



*Jeff Baker, left, takes request while Tony Psomas announces Beach Boys cut.*

In the fall of 1973, WJRH's chief engineer, Jeff Baker, and the station's business manager, Tony Psomas, began an "oldies but goodies/goldies" show on Friday nights, a traditionally dull night for Easton area radio. For a basically progressive station to revert, even temporarily, to doo-wop and bop-sho-bop programming with requests and contests caused many doubts and worries on the part of the student board of directors. The station competes with both a heavy-type and a middle of the road local AM station and with some of the better progressive FM stations out of Philadelphia and New York.

But the worry and doubt were for naught. Surveys have shown that a minimum of 60% of the campus listens to the show and participates in requesting songs (at 10 cents a shot) to dedicate to a "loved one, that gang, and the creeps across the tracks." Response to the show was so great that the station sponsored a live broadcast sock-hop on Halloween, a first in that station's history and the first remote stereo broadcast done in the Easton area.

But rock and roll shares its time with its successor, rock, and its musical

cousins, folk, jazz, and classical, in the Big J's programming. Broadcasting 20 hours a day, Sunday through Thursday and broadcasting continuously Friday and Saturday, WJRH tries to program as much as possible in order to give both the audience and the DJ as much of an educational experience as possible.

The biggest pride of the station is its independence. Although funded by the college student government, as all college activities are, the station is totally run by the students. Since the station is not connected with any educational department, the training of the DJ can be more relaxed so that the DJ takes pride in his show and independently works to improve the shows, rather than improve a grade. The DJ's learn the necessary skills that other stations want. This is repeatedly proven when we keep losing our staff to the local professional stations.

The only weak link in the station, according to general manager Bob Neumann is the public affairs/access programming. "We have had good news and sports departments that disappear mid-semester due to academic pressures," Neumann says. "To run these departments with the excellence that compares with the rest of our station demands total involvement from the students. And the students primary reason must remain academics so that news and sports often take a back seat to the easier musical entertainment broadcasts. It is something we still have to work on before we can say we are a competent station."

The programming day at WJRH is now broken up into three-hour and two-hour slots, beginning at 7 a.m. (7-10 a.m., 10 a.m.-12 noon, noon-3 p.m., 3-6 p.m., 6-9 p.m., 9 p.m.-12 midnight, midnight to 3 a.m.) on standard broadcast days, with UPI Audio news aired hourly until noon and then between shows until the end of the day. DJ's are not required to program folk, rock, or jazz, but can intermix any form that airs well. The only musical form that is blocked in is classical, which airs throughout most of Sunday and late Wednesday afternoon. This way, full operas, arias, and masterworks can be aired without petty interruptions. This does not prevent other DJ's from playing classical music nor does it prevent the classical department from airing modern interpretations of the classics.

The future for the Big J? The college will probably be developing a new student center in the near future and WJRH has to begin designing and furnishing its new facilities. After going stereo in 1972, our next engineering project is to obtain a higher power rating so we can escape the Lehigh Valley radio dish and broadcast to the rest of the surrounding communities. And there are still 20 hours left in the week that we are not broadcasting, which is a waste of equipment. Besides, we are one of five college stations in the area and we plan on remaining the leader so that our listeners always have something different to turn to.



*Tim Pivnicny, left, looks on while General Manager Bob Neumann checks programming chart.*



*Student Dom Pucci doing production.*

# WARP




*B. Linda Dabney, program director and author of story, in the main studio.*

# Small Town Radio Grows Up

*by B. Linda Dabney*



*Rick Coyle, D.J. in 1968 when WARP first began broadcasting. Note the highly sophisticated facilities.*

December 7, 1968, marked the first day of broadcasting for WARP-FM, the student-operated radio station of Erskine College. Like most small college town organizations of this nature, WARP began operation with handed-down equipment located in the basement of the science building. The following year WARP moved into the recently-vacated language laboratories where conditions were better adapted for our purposes. In the succeeding four years it has overcome most of the problems facing a non-profit, educational station where organization and spirit are the deciding factors between the success and failure of the venture.

Erskine is located southwest of Greenville in Due West, South Carolina, a town of approximately 1,300 residents. WARP gears programming toward the 800 campus residents as well as the outlying farm communities. Programming began in 1968 with a top 40 format and campus news on the hour; it has progressed into the seventies with a wider selection of



*WARP today. Carol Heppert in the main studio.*

music, NBC news being rebroadcast, courtesy of WFBC, Greenville, and live broadcasting of all convenient games played by the three major athletic teams at Erskine (culminating this year in the live broadcast of the National Association of Intercollegiate Athletics soccer championship held in St. Louis, Mo.). Daily campus news and community affairs programs are also part of the schedule.

WARP signs on daily at 3 p.m. and runs music for easy listening until 6 p.m., when the early evening shows offer nationally syndicated taped programs interspersed with a variety of music programs. Sunday afternoons begin at 11 a.m. with the broadcast of the local church service for the benefit of local shut-ins and is followed by five hours of classical music. The late evening (12 to 2 a.m.) is reserved daily for a special program entitled "The Underground Railroad" which specializes in non-stop hard and progressive rock music.

New equipment has aided WARP in improving the quality of its "New Sound"; a new six-channel console has replaced the previous handmade model while a new antenna has strengthened the signal from a ten to twenty mile radius. Production equipment has grown from one tape deck to several for stationary and portable usage, two cartridge machines and turntables for a production studio. WARP has enlarged its broadcasting studio to accommodate the rapidly growing number of albums and tapes used by the more than 40 staff announcers.

The main purpose of WARP is to provide training and experience for those interested in a broadcasting career, but it also offers another means of campus communication as it operates with 10 watts of output power. In the words of station manager Jon Womack, "We are a small station but we're big on involving the community with the campus."


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# Engineering

Ludwell Sibley

## CABLE FM: 50 STATIONS AND GROWING

The vigorous growth of cable FM continues with no sign of slowing, and the number of operating stations has passed fifty.

Counted as cable FM are only those operations which provide true local-origination radio on a cable system. A licensed FM station which happens to appear on cable is not CAFM for our purposes, nor is the rebroadcasting of non-FM stations. Likewise, straight background music origination by cable operators doesn't count.

The prospect of interference before the FCC by broadcaster groups seems relatively remote at the time of writing. Thanks to stations which returned the IBS cable questionnaire, we think we can conclusively demonstrate the value to the public of local-origination radio. The National Cable Television Association reportedly feels the same way. After all, if the FCC has seen fit to *require* local origination of television on cable, it would hardly be consistent to hamper locally-originated radio.

We also feel that the promotional activities surrounding a CAFM operation are beneficial to on-the-air FMs as well. They publicize the idea of "FM" radio, and persuade listeners both to buy sets and to wire them to the cable. The listener then gets improved reception of off-the-air signals, an important factor in areas with unfavorable terrain. Promotions will also stimulate sales of portable and automobile FM sets which the cable station cannot reach.

Some results from the IBS survey may be of interest. More than half the operating CAFM stations, including the three non-school operations, furnished data. Other information came from material on hand, industry directories, and equipment makers.

Figure 1 charts the growth of cable stations. If present growth continues we could easily have 75 stations by the end of 1974.

Combined carrier-current and CAFM operation remains the most common technique, but five college-related stations use CAFM alone. This includes a few community-college stations having no dormitories to cover, and thus unable to exist without CAFM or licensed radio.

Student control is the usual thing. All known college CAFMs, with one possible exception, are student-managed.

For various reasons, including copyright coverage, 70% of the school-related CAFMs are IBS members.

Figure 2 shows the stations' audience potential, in terms of CATV-equipped households reached, including the effects of stations which appear on multiple cable systems. The median potential audience is about 3900. About 16% of all CAFMs serve fewer than 1000 taps, and 14% more than 40,000. About 524,000 households in the U.S. and Canada have access to at least one CAFM station. However, figures like these are optimistic because they fail to reflect what fraction of the households are able to receive FM from the cable, or what percent listen significantly to a CAFM station appearing on a TV sound channel. True figures would require careful audience surveys.

Exactly 33% of CAFMs are non-commercial. Figure 3 gives the distribution of advertising income for the others. The median revenue is $2000, hardly an amount to put undue pressure on on-the-air broadcasters. As with straight carrier-current, a station's commercial revenue depends heavily on the

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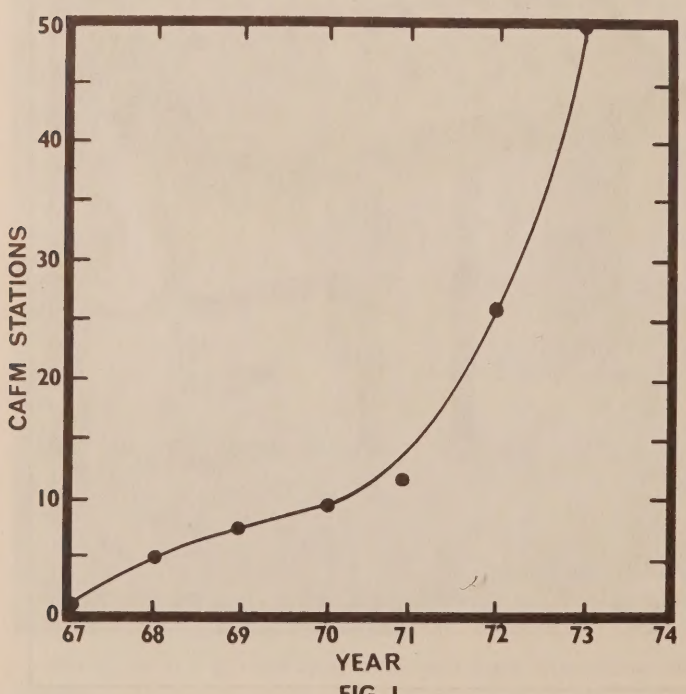



FIG. 1

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MORE INFO? CIRCLE SERVICE CARD ITEM 65.

amount of other funding, the size of the station, and the success of the sales department.

The costs incurred in adding CAFM vary somewhat. All known stations which use a rented telephone line pay their own line charges. In a couple of cases the CATV operator provides transmission to the head-end on his own facilities. Three-quarters of the stations operating on FM channels own their own modulators, and have chosen solid-state types over cheaper tube models by almost three to one.

The value of CAFM as a true local service is evident from Figure 4, which shows the number of nonduplicating AM or FM stations licensed to the same community. In 24% of the cases there is *no* other local service; in 61% there are no more than two other local stations.

A third of the FM operations are on split-channel frequencies, 95.0 MHz for example. Jim Berkey of WQAX (Bloomington) points out a useful fact: the CAFM station can operate without troublesome interference on the second-adjacent channel to another signal. Upon doing some checking, it turns out that stations in the San Francisco, Los Angeles, and New York City areas have had the same experience: they generally operate with other stations 400 kHz above and below. Interference is controllable, of course, by simply setting the CAFM signal similar in level to its neighbors. (The FCC educational-FM rules recognize this situation by allowing a second-adjacent station to be ten times as strong as its neighbor.) So CAFM can salvage commercial channels in metropolitan areas which are simply unlicensable due to mileage-separations requirements. This is true even without splitting channels.

Thirteen stations operate on TV channels, taking advantage of an existing weather-scanner modulator, and two operate TV sound and FM simultaneously.

Stereo operation is popular: 31% of the FM operations are stereo, compared with, say, 5% of Class D FM stations. The noise advantage of cable radio, and possibly the commercial revenue to pay the doubled line costs, are important here.

Half a dozen stations feed multiple CATV systems, due usually (but not always) to use of a common head-end by the cable operator. One station appears this way on eight systems.

Educational campaigns of the how-to-

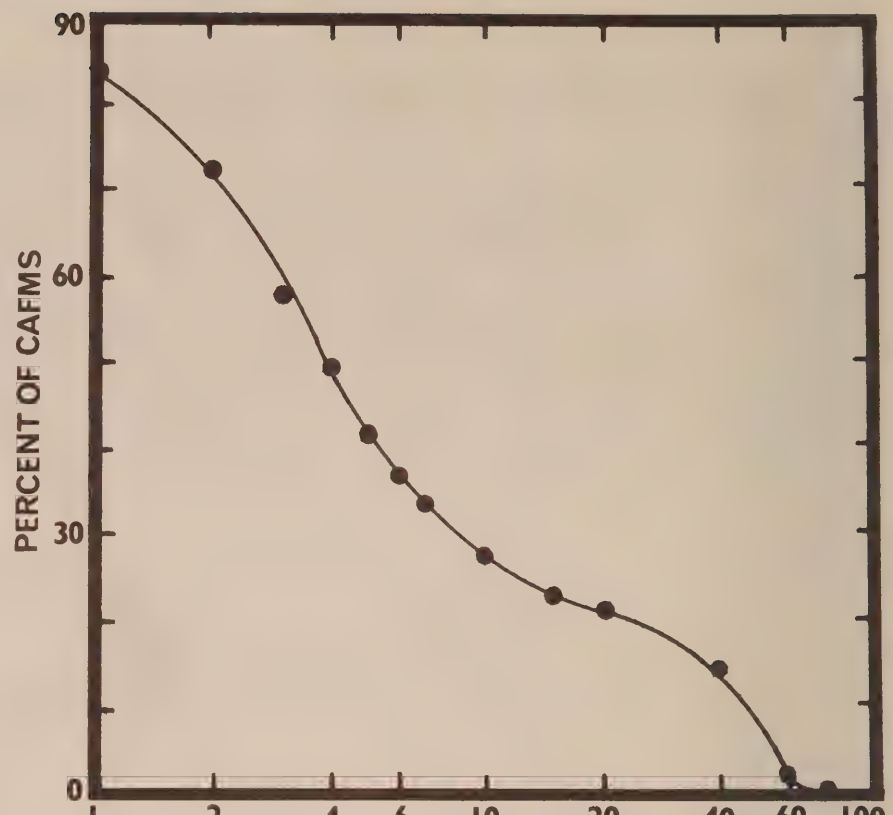


FIG. 2

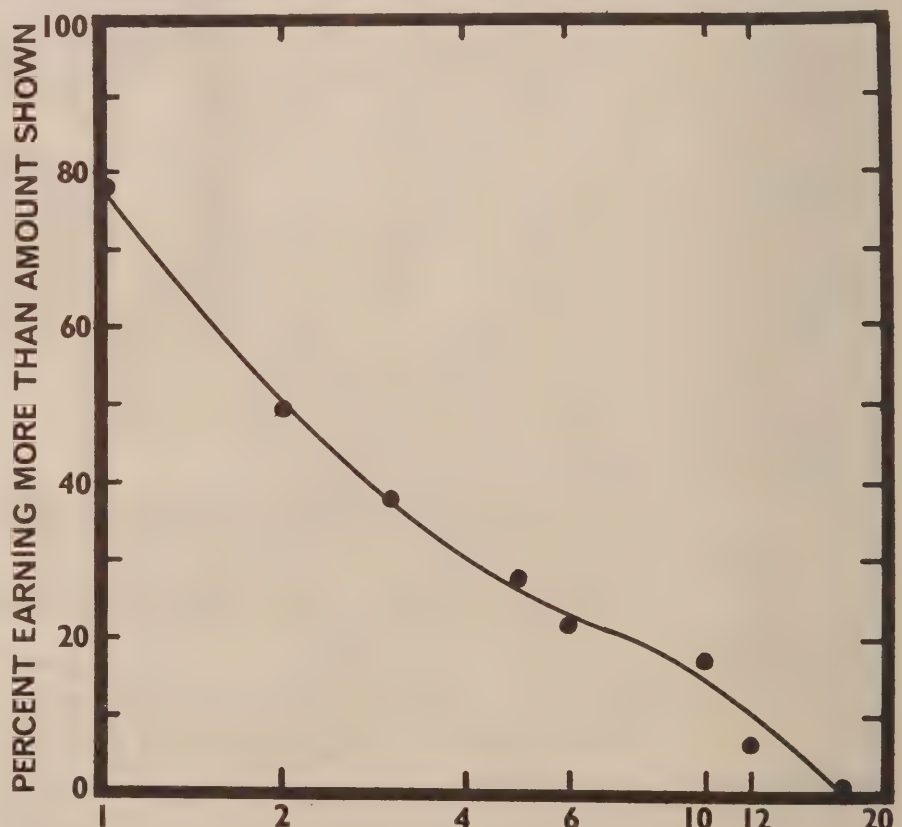


FIG. 3

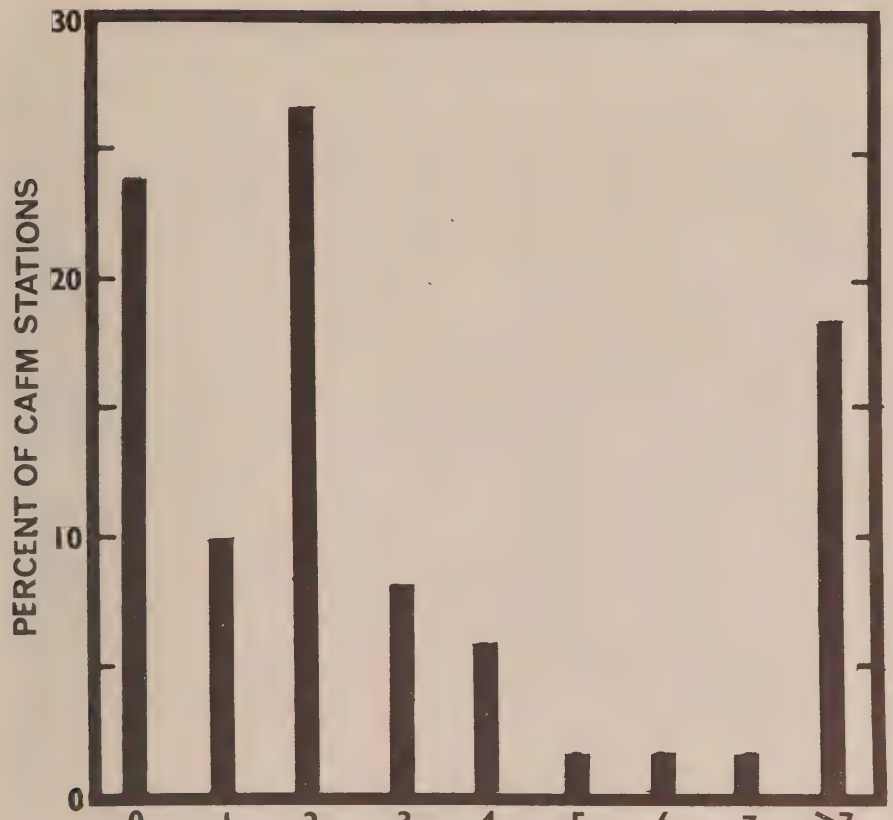



FIG. 4 OTHER STATIONS




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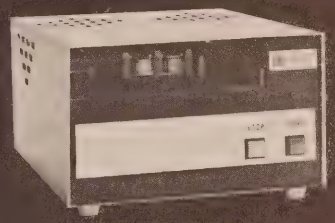
FIDELIPAC®

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*Fidelipac is a registered trademark of TelePro Industries Incorporated*

MORE INFO? CIRCLE SERVICE CARD ITEM 66.

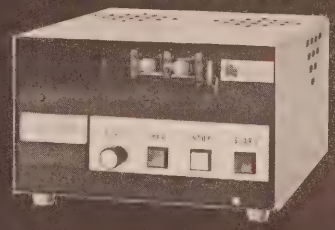
Quality and economy can go together... we did it with Encore tape cartridge equipment



Encore Reproducer $475

Some broadcasters want and need an economy line of tape cartridge equipment. We incorporated the best features of our premium line into Encore. We simplified systems, circuits and manufacturing techniques. And we created further economies by selling direct, with payment due when you order. We offer a 30-day guarantee of satisfaction plus a one year warranty. Call us collect today and find out why many broadcasters are finding quality and economy under the Encore name.

Encore Recorder/Reproducer $630



Call 309-828-1381 collect for details on the Encore series

INTERNATIONAL TAPETRONICS CORPORATION

2425 South Main Street, Bloomington, Illinois 61701

MORE INFO? CIRCLE SERVICE CARD ITEM 67.



MORE INFO? CIRCLE SERVICE CARD ITEM 68.

## ENGINEERING, Continued:

receive-our-station variety appear to be a necessity with cable radio. Before issuing instructions, it would be good to agree with the cable operator on what methods of cable connection are acceptable. Some companies will insist on selling second taps, installed by their own technicians. In a few states, Indiana and Pennsylvania among them, the CATV industry has even secured legislation outlawing subscriber-added extensions, on the theory that unofficial wiring is likely to radiate in excess of the FCC's limits. In other cases, the cable operator is unconcerned about the matter. Perhaps a reasonable compromise is to regard the cable company's function as to provide a broad-spectrum signal source. A subscriber should then be within his rights in using an ordinary TV-FM splitter of the filter type to divert FM frequencies to his radio.

Some potential CAFM stations and their school administrations have come under pressure from licensed broadcasters who fear dilution of their listening audiences and advertising revenue. We have shown above that the revenue loss is miniscule. It would be appropriate, where unfair competition is charged, to offer to put an AM station on the cable along with the CAFM operation. An AM daytimer could feed the FM modulator during normal operating hours, with a switch to the college station's audio at sundown. A more costly but superior plan would be for the two stations to appear side-by-side on the cable. The broadcaster would pay for his modulator and line charges just like the CAFM station. Or he could use an AM tuner at the head-end to receive the signal directly. All concerned, including the cable operator, would benefit. The number of AMs appearing on cable in mid-1973 was 46, up from 35 a year previously.

A number of intriguing uses for CAFM are popping up. The rebroadcasting of WWV, National Weather Service, police radio, and international shortwave programs are obvious. A few CATV systems are converting TV sound to FM frequencies, letting television viewers get high-fidelity sound for the first time. An explorer post in California is setting up a CAFM station. A symphonic orchestra in a major eastern city has its own CAFM outlet. Some cable operators are originating as many as seven channels of music. One western college, in addition to the campus station, uses a second CAFM channel for lectures and concerts. Perhaps the most intensive CAFM coverage of all is available in Bethlehem, Pa. There, Lehigh University station WLRN operates carrier-current and mono CAFM, with WLVR on carrier-current, mono Class D FM, and stereo CAFM. Across town, Moravian College's WRMC also operates C-C and CAFM.

At least one manufacturer is producing equipment to take advantage of the two-way "sub-band" feature found in some later cable systems. Where applicable, it works as follows: at the studio end, a monaural or stereo modulator operates in the 2-14 MHz range, feeding the "upstream" direction of the cable. At the head end, an up-converter translates the signal into the FM band for transmission downstream to the listeners. The total cost of the equipment is about $600 more than for a conventional system. Compared with renting 15-kHz audio lines at $30 per month, the sub-band system breaks even at about 20 months for mono and 11 months for stereo.

It appears that CAFM, as an emerging new medium, would make a good topic for studies and term papers in broadcasting or communications courses. A certain amount of survey research is possible, as by polling stations by mail. A lot of information helpful to the whole industry would emerge from a door-to-door survey of cable subscribers. Cable companies may be able to help listenership surveys by furnishing total numbers of FM taps and a sampling of names and addresses to be interviewed. A good, readable paper might convert readily into an article for JCR. And the topic certainly wouldn't appear unoriginal to instructors. The writer would be happy to provide considerable research material to anyone seriously studying the field.



# Congratulations! WZBC-FM



The WZBC-FM antenna goes up under the supervision of the engineering staff of Boston College Radio.

This month Boston's Newest FM radio station began serving a potential listening audience of almost a million people. For the staff at Boston College Radio, activation of WZBC-FM marked attainment of a goal many people thought wasn't possible. But through hard work, imagination, and perseverance, the broadcasting people at Boston College made WZBC happen. Educational FM Assoc. handled the frequency search and engineering paperwork for Boston College Radio and we're proud to have been a part of the WZBC-FM effort. If you live in or near Boston, tune in at 90.3 MHz. It's a sound we think you'll like.


**EDUCATIONAL FM ASSOCIATES**
P.O. Box 460
Falmouth, Massachusetts 02541
Tel: (617) 540-1496
Eves. and Wknds: (617) 585-8165

**BE SURE TO VISIT OUR HOSPITALITY SUITE**
**at the IBS Convention in New York City**
**April 5, 6 and 7**

MORE INFO? CIRCLE SERVICE CARD ITEM 69.

# MUSIC INDUSTRY DEPARTMENT

## Albums

| | | |
|---|---|---|
| TALES FROM TOPOGRAPHIC OCEANS | YES | ATLANTIC |
| LAID BACK | GREGG ALLMAN | CAPRICORN |
| TUBULAR BELLS | MIKE OLDFIELD | VIRGIN |
| BRAIN SALAD SURGERY | EMERSON, LAKE & PALMER | MANTICORE |
| PLANET WAVES | BOB DYLAN | ASYLUM |
| HAT TRICK | AMERICA | WARNER BROS. |
| FM/LIVE | CLIMAX BLUES BAND | SIRE |
| MANHOLE | GRACE SLICK | GRUNT |
| UNREAL | BLOODSTONE | LONDON |
| MYSTERY TO ME | FLEETWOOD MAC | REPRISE |
| ASS | BADFINGER | APPLE |
| COURT AND SPEAK | JONI MITCHELL | |
| ONE MORE RIVER TO CROSS | CANNED HEAT | ATLANTIC |
| HOTCAKES | CARLY SIMON | ELEKTRA |
| IT'S LIKE YOU NEVER LEFT | DAVE MASON | COLUMBIA |
| THE PHOSPHORESCENT RAT | HOT TUNA | GRUNT |
| TABERNAKEL | JAN AKKERMAN | ATCO |
| T.B. SHEETS | VAN MORRISON | BANG |
| BANG | JAMES GANG | ATCO |
| WILD TALES | GRAHAM NASH | ATLANTIC |

## Singles

| | | |
|---|---|---|
| MIDNIGHT RIDER | GREGG ALLMAN | CAPRICORN |
| RAINBOW | AMERICA | WARNER BROS. |
| THEME FROM THE EXORCIST | MIKE OLDFIELD | VIRGIN |
| HANGING AROUND | EDGAR WINTER | EPIC |
| TELL HER SHE'S LONELY | EL CHICANO | MCA |
| LOVING ARMS | KRIS & RITA | A&M |
| SILVER THREADS AND GOLDEN NEEDLES | LINDA RONSTADT | ASYLUM |
| MOCKINGBIRD | CARLY SIMON & JAMES TAYLOR | ELEKTRA |
| COUNTRY GIRL | OZARK MOUNTAIN DAREDEVILS | A&M |
| LOVE'S THEME | LOVE UNLIMITED | 20TH CENT. |
| FUNERAL FOR A FRIEND | ELTON JOHN | MCA |
| IF YOU'RE READY | STAPLE SINGERS | STAX |
| YOU'RE SIXTEEN | RINGO STARR | APPLE |
| LIVING FOR THE CITY | STEVIE WONDER | TAMLA |
| ON A NIGHT LIKE THIS | BOB DYLAN | ASYLUM |
| TEENAGE LAMENT | ALICE COOPER | WARNER BROS. |
| STAR | STEALER'S WHEEL | A&M |
| WOLD | HARRY CHAPIN | ELEKTRA |
| APPLE OF MY EYE | BADFINGER | APPLE |
| JESSICA | ALLMAN BROTHERS | CAPRICORN |

## Break-Outs

**Lynyrd Skynyrd – Sounds of the South**
WKGO, State Univ. College of Arts & Sci.
Plattsburgh, N.Y.



**Johnson & Drake – Carry It On**
WMSM, Mountain Side College
Emmitsburg, Maryland

# Record Reviews



## PLAYING MY FIDDLE FOR YOU
**PAPA JOHN CREACH & ZULU**
**GRUNT BFL1-0418**

This is the best jazz-rock album that I have heard in a long time. The arrangements of Papa John and Zulu move from great blues to magnificent . . . kicking jazz-rock. This is one album that after you have listened to it you want to hear it again and again. And you should. All cuts should get lots of airplay and there are enough Papa John freaks out there to feature the album sometime and play the whole disc at one sitting.

## NINE
**FAIRPORT CONVENTION** **A&MSP-3604**

Play this disc! Fairport Convention has been together a good while now and their music on this album reflects it. All the cuts are tight, well arranged and are great music. Fairport is a good British group but this album hints at a little Americanization sneaking into their sound. Really a good record!

## CHECK IT OUT
**TAVARES** **CAPITOL ST-11258**

Tavares is climbing rapidly on all of the R&B and Soul charts all over the country and this album sets a great scene for better things to come. I don't mean that in a derogatory way because Tavares is a fine group and in my opinion they will be one of the better soul groups around for awhile. Give this disc a little airplay and I'm sure it will get a lot more.

# Other New Releases



| | |
|---|---|
| **LIFE MACHINE**<br>**HOYT AXTON** | **A&M** |
| **ROARING**<br>**HOOKFOOT** | **A&M** |
| **GANGSTERS OF LOVE** | **CAPITOL** |
| **VIVE LA TRANCE**<br>**AMON DULL II** | **UA** |
| **BLUE MAGIC** | **ATCO** |
| **MESTIZO**<br>**DANIEL VALDEZ** | **A&M** |

# DISC NOTES

**by Steve McIntyre**

In case you haven't heard, Mike Oldfield's *Tubular Bells* album has been selected as the theme music for the motion picture "The Exorcist." If you haven't had an opportunity to listen to this disc yet, scrape together your pennies and go buy it, or write to Atlantic Records and beg for one. It is probably "the landmark rock album of the decade," and Atlantic has another feather in their cap to match the one placed there by YES.

A spokesman for the nation's recording industry, Stanley Gortikov, says Oklahoma has become a haven for tape recording "pirates," according to an Associated Press story dated February 5, 1974. Gortikov says that one out of every four tapes produced in the country now is a "bootleg," and one out of every two sold in Oklahoma is in that category. He said that this "pirating" has siphoned about 200 million dollars from the industry. So, if you see a dude walking down the street wearing an eye patch and carrying a tape recorder he may be the one with the big loot.

I received a note from Karen Williams at RCA noting that they are discontinuing promotional record service to college radio stations. I hope this isn't a growing trend in the industry because there would be more harm than good come from it. Campus radio stations and record companies have scratched each other's back for a long time and it would be a shame to see this alliance come to an end just because of a "lil ol' " vinyl shortage. Personally, I think the record companies should give college stations top priority on promo lists!

Alice Cooper has been named Top International Group by *Disc* magazine, in a poll of its readers. Diana Ross was voted Top International Female Vocalist and David Bowie was voted Top Male Vocalist. After "Alice" in the international group rankings came 2. The Osmonds (???), 3. The Rolling Stones (!!!), 4. Slade, and 5. Led Zeppelin. This News Note from the land that gave us Freddie & the Dreamers! (The Osmonds???).

Don't forget about the IBS convention coming up in April in New York City. Start making your plans now so you won't be left out. See you next month!




Here are some of the speakers for Infortainment '74:

Geraldo Rivera – ABC newsman with WABC-TV whose documentary material has been aired nationally and who will host a regular ABC Wide World of Entertainment show starting in April.

Art Alpert – News director of WRVR, N.Y.

Joel Plavin – General manager, WEVD, N.Y.

Marshall Efron – Air personality, WBAI, N.Y.; former star of NET's Great American Dream Machine.

Steve Glauber – Former general counsel and community affairs producer, NET.

Jim Cameron – Operations manager and chief announcer, WLIR, N.Y.

Bob Mahlman – VP, ABC Radio Networks.

Pete Willett – VP, Broadcast Services, UPI.

Bill Malone – VP, General Tel. & Elec.

Dick Crompton – Pres., LPB.

Ludwell Sibley – IBS Engineering manager.

Time is really passing fast. If you haven't already set aside April 5-7–or sent in for registration forms as yet–you'd better get a move on and join the crowd.

Speaking of crowds–that's already a certainty. Normally by mid-February we have about 50 registrations in process. This year we have nearly 800 from more than 100 stations–and they keep coming in at a steady rate. You can bet on this being the biggest IBS convention ever–by a large margin. That makes it your best bet to meet other college broadcasters and share problems–as well as getting the benefit of our many professional panelists.

But there is one problem this year–transportation. I don't need to remind you of just how much of a problem it is–but maybe a few suggested solutions wouldn't be out of order.

1. Don't drive to New York City unless you plan to fill your car. Try to park in New Jersey or on Long Island and take mass transit into Manhattan. If you must park in Manhattan, get in touch with the convention committee for parking garages with special rates (it still won't be cheap).

2. Better yet–get in touch with other schools in your area or on your route to New York and rent a charter bus to bring all of you. If getting in touch with other schools presents a problem, get in touch with an IBS Regional Director for assistance. Some directors already working on the problem include: Lee Harbert (Glenville State College, Glenville, W.Va.), Vince Palau (Penn State Univ., University Park, Pa.), and Art Versnick (Findlay College, Findlay, Ohio).

3. If you want to make it faster than possible by bus, get in touch with Amtrak. They have group rates for 15 or more persons from a single stop and if you have enough people, an entire train car can be chartered at better rates yet. All Amtrak trains to New York City stop at Penn Station, directly across the street from the Statler Hilton.

4. And if you want to really get there fast–and feel that flying is the only answer–get in touch with the smaller airlines and see about a group rate from them as well for several groups coming from nearby schools. If the convention committee has definite word on a group arrival of this type, it may be possible for us to arrange transportation from the airport at lower than normal rates.

There's nothing we in IBS can do to really solve your transit problems, but if you follow our suggestions, you will certainly cut down on the complications.

If you can't find something of interest at INFORTAINMENT '74, you probably aren't in college radio! It'll be a great convention if all of us are there. See you in New York at INFORTAINMENT '74.

## FEE SCHEDULE FOR INDIVIDUALS

**From Member Stations**

| | |
|---|---|
| Rec. by Dec. 15, 1973 | $19.00 per individual |
| Rec. by March 1, 1974 | $21.00 per individual |
| Rec. at door | $25.00 per individual |

**From Non-Member Stations**

| | |
|---|---|
| Rec. by Dec. 15, 1973 | $22.00 per individual |
| Rec. by March 1, 1974 | $26.00 per individual |
| Rec. at door | $29.00 per individual |

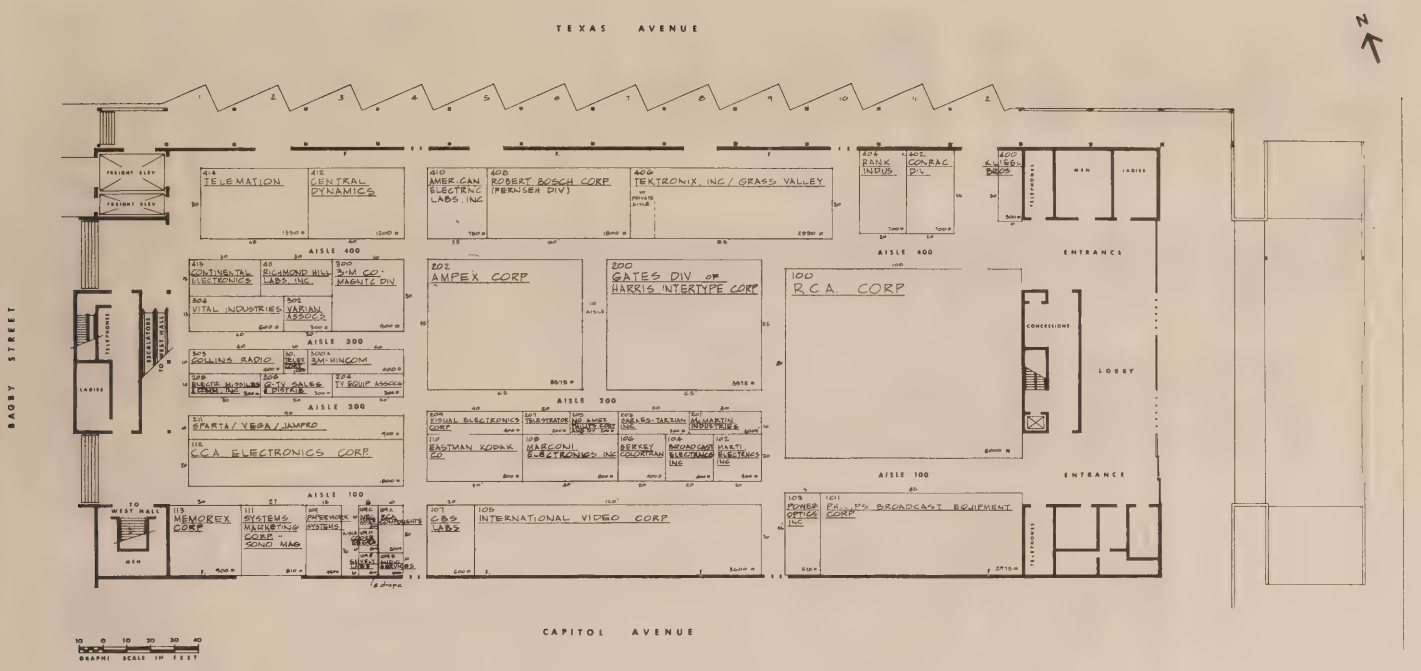
(Note: a downwards adjustment and partial refund will be made on non-members who join IBS after paying for convention admissions.)

**Professional Attendees** (including faculty)

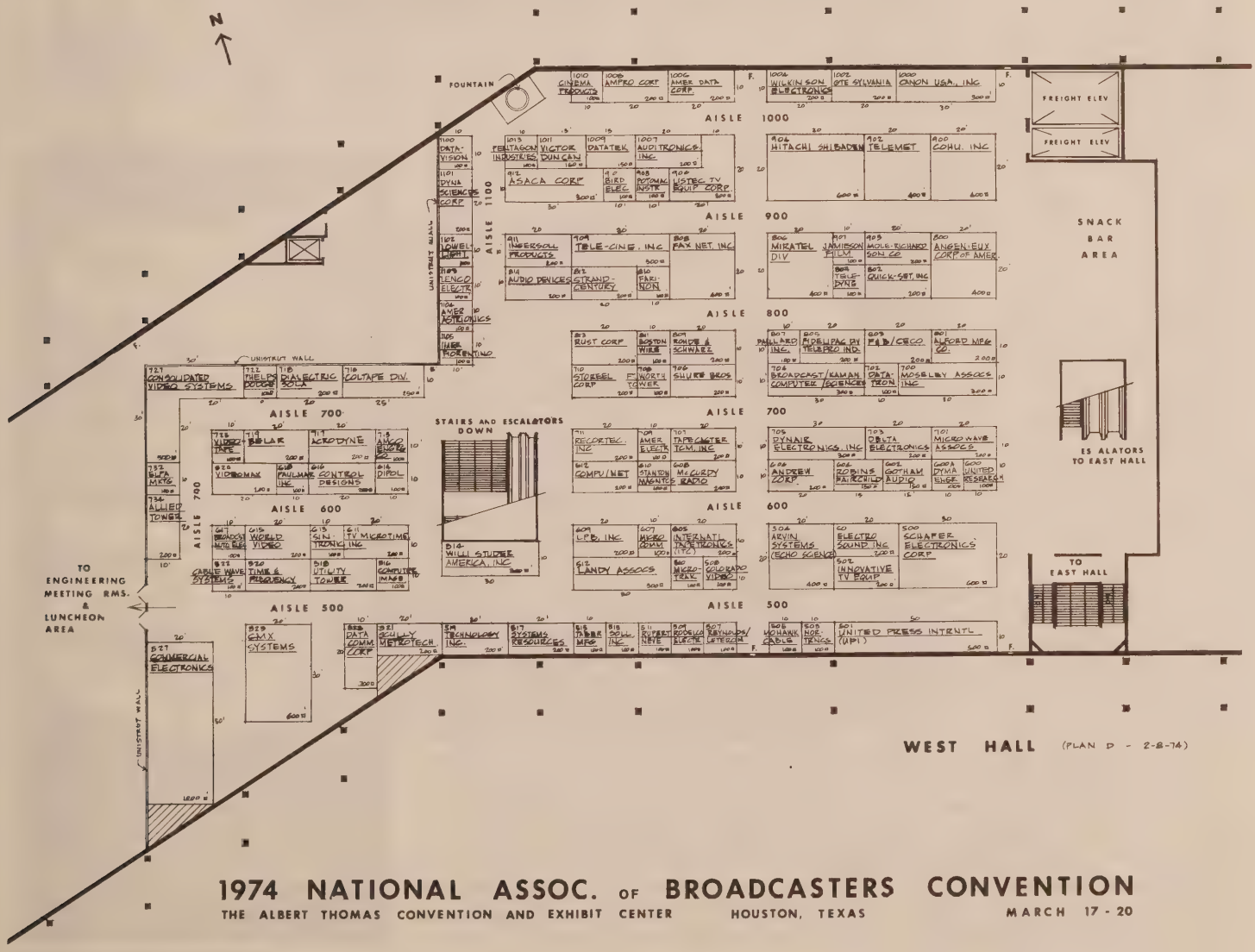
| | |
|---|---|
| Rec. by Dec. 15, 1973 | $24.00 per individual |
| Rec. by March 1, 1974 | $28.00 per individual |
| Rec. at door | $31.00 per individual |

**Special Hotel Rates at Statler Hilton** (paid to hotel directly)

Singles: $20.00 Twins: $26.000 Doubles: $26.00
Triples: $29.000 Quads: $34.00




EAST HALL (PLAN D - 2-8-74)




WEST HALL (PLAN D - 2-8-74)

# 1974 NATIONAL ASSOC. OF BROADCASTERS CONVENTION

THE ALBERT THOMAS CONVENTION AND EXHIBIT CENTER HOUSTON, TEXAS MARCH 17 - 20

# Sales of Albums, Tapes to Record 70% Increase by 1982

The recorded music industry, confronted with a reduction in the availability of vinyl used in manufacturing phonograph records due to the current energy crisis, is taking positive steps to ensure a continuation of the spiraling trend in sales, according to an analysis of the industry recently released by Frost & Sullivan, Inc.

In projecting a rise from a 1972 sales level of $2 billion to $3.4 billion by 1982, the New York City-based research firm forecasts the following positive effects designed to mitigate potential problems:

Industry will release less material, concentrating on better quality repertoires recorded by proven artists and, in the end, reduce returns.

People who are forced to remain indoors because of the gasoline shortage will use their recorded music facilities more than they do currently.

Given increased material costs, there will be justification for list price increases.

The 123-page study predicts that the $3 billion barrier will be broken by 1980, a fact that highlights an industry which surpasses the revenue of all professional sports and the entire film industry combined.

"More Americans are buying recorded music and listening to it on more record and tape players than at any time in history," Frost & Sullivan adds. Figures for 1972 easily point this out: recording companies released 5,196 new LP record albums and 4,469 new tape albums. Translated into weekly totals, this means that at least 100 new music albums were released to the consumer market every week in the year.

The study notes that 87% of the recorded music sold in the U.S. is album product, either in the form of disc LP's or stereo tapes. The remaining 13% represents the highly speculative form of single disc records.

In analyzing an industry which one company comptroller insists is "no place for timid or pessimistic financial men," the report speculates that despite holding costs down to a minimum, recording firms will be able to show valid reasons for increasing suggested list prices.

Also noted is the trend back toward recording company wholly-owned branch distributors, rather than distribution through independent distributing firms.

Forecasts provided in the study are based, in part, by results of written questionnaires mailed to major recording companies plus talks with industry executives; notes taken at music business conferences; trade press releases; trade paper estimates.

Basing its conclusions upon assumptions such as an expected lower birth rate and an indication that more music is desired by the public, the study foresees an overall percentage increase of approximately six percent over the next decade. Quadrasonic sound, the most promising newest entry in the market, is seen as becoming the mass item its advocates have always predicted. Hence, success in the industry, visualizes Frost & Sullivan, will be dependent upon the realization that "quadrasonic is the most important sound innovation since stereo."

## NEW GENERAL MANAGER FOR DEPARTMENT OF COMMUNICATIONS AT LOYOLA UNIVERSITY

Norman P. Schroeder has been selected as the new general manager of the Loyola Department of Communications' closed circuit radio station. Schroeder, a junior in communications, will manage the station until 1975.

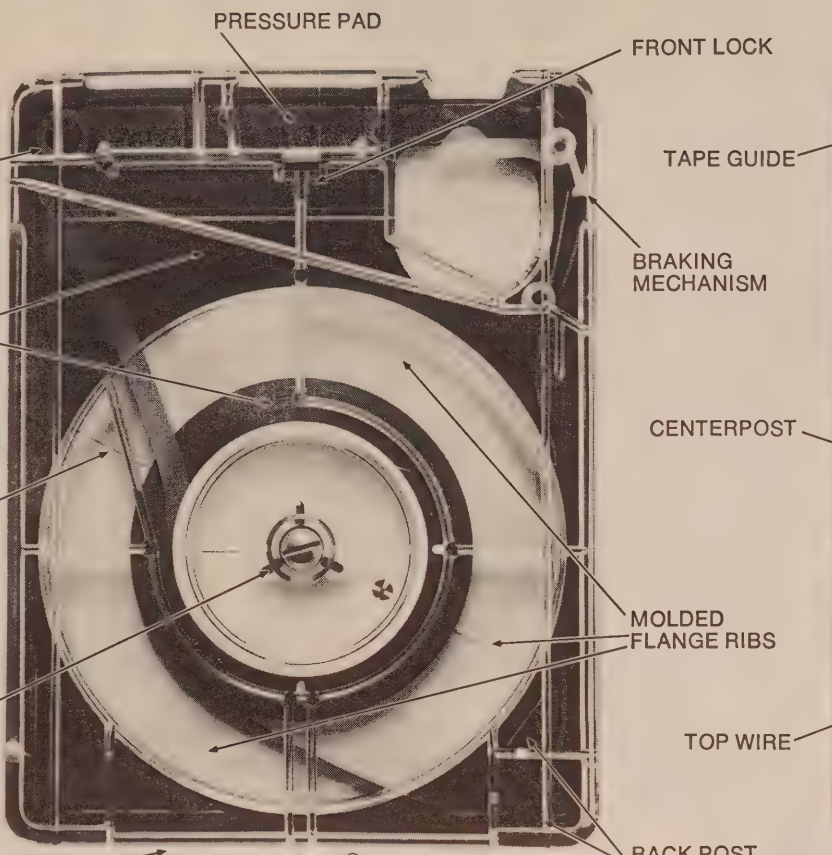
Selection for the position of general manager is based upon the student's participation on the campus station's staff. He must have taken at least 20 hours in communications, hold a cumulative grade point average of at least 2.5, and be either a junior or a senior in communications.

Schroeder had been the station's program director for a year, as well as an announcer for two years. He was also thynews director of the Catholic Provincial Communications Center, which produces religious shows for the New Orleans area. Currently he is a member of the Society of Professional Journalists, Sigma Delta Chi.

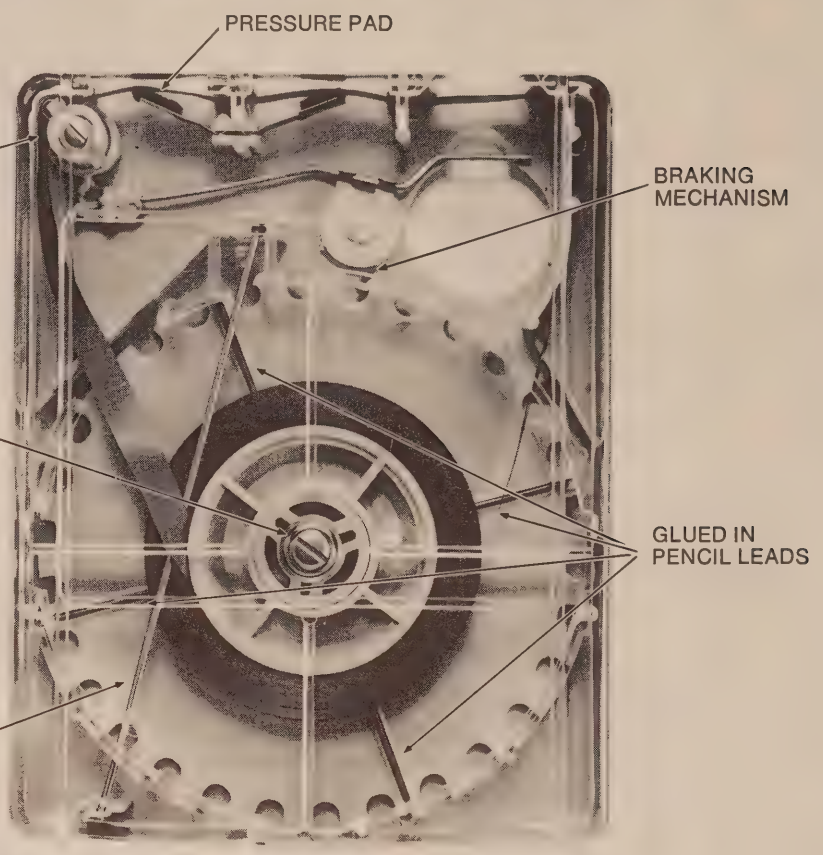
As the new general manager, Schroeder intends to get more students involved in the activities of the radio station.


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# YOU BE THE JUDGE!




**AUDIOPAK® A-2 BROADCAST CARTRIDGE**



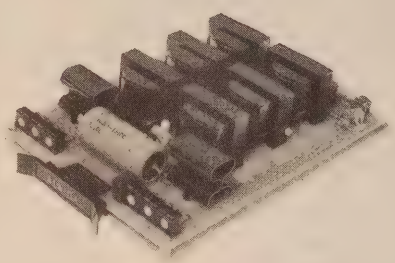

**FIDELIPAC® BROADCAST CARTRIDGE**

FOR MORE INFORMATION AND A FREE SAMPLE OF THE A-2, WRITE TO...
AUDIO DEVICES, INC., A CAPITOL INDUSTRIES CO., 100 RESEARCH DRIVE, GLENBROOK, CONN. 06906 • MANUFACTURERS OF AUDIOTAPE,® AUDIOFILM® AND AUDIODISCS.®

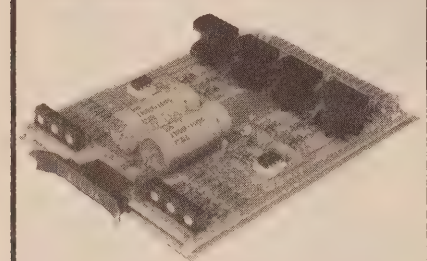
MORE INFO? CIRCLE SERVICE CARD ITEM 71.

# ROH for some good sound reasons

**Roh Audio DAs offer even more for your '74 budget. Here are two good reasons to look closer at the Roh 200 Series.**



MODEL 212 1 x 6 DA, 6 individual balanced transformer outputs **$150.00**



MODEL 211 1 x 6 DA, 6 differential source terminated outputs balanced within 1% **$115.00**

Both models, 211 and 212, feature
- Input potentiometer provided for use with -20 to +20 dbm lines
- Output isolation overcomes cross-talk or short circuit problems
- Individual level adjustment for each output
- Entire assembly on one plug-in card
- All domestic premium components.

Interested? There are 21 other good reasons for including Roh in your '74 plans ... the 21 additional models in the Roh 200 series. Write for our free catalog today.

**ROH INC.**
**Roh Corporation**
150 Technology Park/Atlanta Suite 15
Norcross, Georgia 30071 Ph: 404/449-0873

MORE INFO? CIRCLE SERVICE CARD ITEM 72.

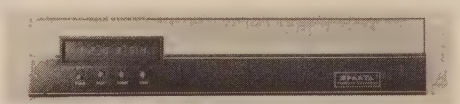

# new products

The SPARTA Model DC24 Digital Clock provides both a bright visual display of correct time and Form C contact closures to perform timing functions in broadcast or other automation systems. The DC24 is standard 19" rack mount width by 3½" high by 10" deep.

Options for the DC24 include Reset Board (approximate time corrections up to four times per hour), Net Join Board (exact time corrections either once or twice per hour, as for joining network news in broadcast automation applications), and Oscillator Time Base and Battery Backup Board (maintain exact time independent of line frequency variations or power interruptions).

Controls on the front panel, directly below the LED readouts, enable the operator to halt the clock altogether . . . advance the seconds counter rapidly . . . advance the minutes counter rapidly . . . or light the LED display momentarily when operating the DC24 on battery. The reset time switches appear on the rear of the chassis.

The DC24 with Reset Board, $475.00. NET-1 Net Join option, $100.00. Oscillator/Battery Backup option, $125.00.



MORE INFO? CIRCLE SERVICE CARD ITEM 73.

*

Concord Communications Systems announces the introduction of their new video cassette players with pause control, automatic-replay (ARP) and still-frame (SFO) features.

The VUP 7510 SFO/ARP is a video cassette player that lets you turn off the machine in mid-play for extended periods of time without losing your place. Unlike a "stop" button, the pause control shuts down the video head and sound, but prevents the tape from automatically rewinding.

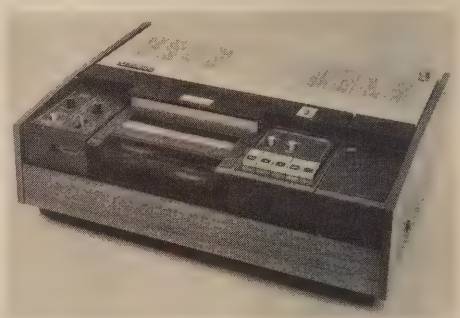
Perfect for study carrels and other training applications, the viewer can stop a picture temporarily while he performs what the program instructs him to do. When finished, a touch of the button picks up the program exactly where it was stopped.

Ideal for promotional applications in exhibits, displays and trade shows, the player can also be programmed for continuous play. With ARP, the machine will rewind and replay a program repeatedly without an operator.

Concord's SFO can "freeze" a picture for close study or discussion. By touching the button, a program can be stopped while the video head continues to function. The stop-action picture remains on the screen until the SFO button is again pushed.

The combination of these features allows for complete flexibility in the use of video equipment. Concord's VUR 7500 has the same equipment mentioned above, except that it has recording capacity.

Concord Communications Systems markets closed circuit television systems, video tape recorders, players, and other equipment for business, industry and education.



MORE INFO? CIRCLE SERVICE CARD ITEM 74.

*

Control Design Corporation announces the immediate availability of their CD25G 25Hz Tone Generator. Designed for compatibility with virtually all audio automation systems presently in the field, this all solid-state unit is intended for production studio use for insertion of the standard 25Hz audio automation actuating tone. It will operate with all audio sources at output levels up to +8dBm. Its two-step operation can be easily mastered by even the most inexperienced station personnel—the start button places the

# WE JUST MADE BROADCAST MIXING A LITTLE EASIER. AND A LOT LESS EXPENSIVE.

Meet our 30,000-series off-the-shelf broadcast audio consoles. Available in versions from a 5-channel mono mixer to a full 8-channel stereo unit, its compact, 25½ x 12½ x 22" package features big-board styling and comfort on the outside.



And state-of-the-art circuitry inside. At an almost-unbelievable price. Starting at **$1299.00**

From the moment you sit at the controls, you see. Maximum operator visibility. Functional control groupings. Even the padded armrest you'd expect only on a custom console.

But outside's only half the story. Swing up the easy-access hinged control panel, and there are more surprises. IC op-amp circuitry. Stepless, linear-motion faders with cue switches, in all mixing channels. And modular plug-in PC boards, to let you interchange various input, output, monitor and cue amplifiers. Modifying or expanding the console with your needs.

(If you're familiar with our larger consoles, you'll note we use the same modular boards.)

But without a schematic, you still won't see all the built-in flexibility. Dual independent outputs, for instance, permitting "2-in-1" console operation. While programming "on the air," for instance, you can use the audition channel for pre-listening or recording. Our remote line channels work two-way, as well: for mixing, or for cue/talkback. Switched with our monitor inputs are contacts for use with warning lights—or remote control of tape machines and turntables, if you wish.

The list of features is considerably longer. But specs and a discussion will be far more convincing. Send for our data sheet, or better yet, call Sales Manager Rick Belmont. You'll see why small news can be big news when it comes from Robins/Fairchild.



**We build our small consoles the way we build our big ones.**

ROBINS FAIRCHILD

**The first name - and the last word - in broadcast consoles and equipment.**

A Robins Industries Corporation

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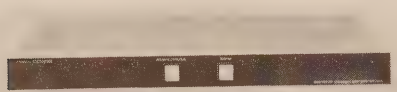
MORE INFO? CIRCLE SERVICE CARD ITEM 75.

# new products

tape transport in motion and the tone button applies the 25Hz tone and stops the transport after a predetermined adjustable period of tone application. An internal gating circuit mutes the audio to eliminate bias pops and other start/stop noises on the finished tape. Standard on all units is a 25Hz tone filter and bridging input.

The CD25G 25Hz Tone Generator will fit standard 19" racks allowing for 1¾" EIA mounting. Power requirements are 115VAC, 50-60Hz. Export models are readily available.

Control Design Corporation, located at 106 South Pickett St., Alexandria, Va. 22304, also manufactures additional system components for total audio automation and distribute a line of automation accessories. Telephone number is 703—751-5650.



MORE INFO? CIRCLE SERVICE CARD ITEM 76.

Magnavox brought total color capability to video recording last year with the introduction of the Magnavox Chromavue 400, a hand-held color television camera. As a follow-up unit, Magnavox has introduced the Chromavue 440 ... a battery-operated, hand-held, completely portable color television camera.

The new camera, designed for the educational, medical, and industrial markets, made its debut at the National Association of Educational Broadcasters convention in New Orleans. The portable Chromavue 440 is designed as a companion to the various video tape and cassette recorders which are rapidly moving into the institutional marketplace.

Because of the Chromavue 440's standard video output, which is full EIA/NTSC type signal, the user is assured of fine color recordings on any color VTR or VCR.

The single tube camera consists of two units—a camera which can be hand held or mounted on a shoulder pod accessory and a processor with battery. The processor and battery pack, complete with a vinyl zipper case, can be carried either by a shoulder strap or in a back pack configuration, with a weight of less than 16 pounds. The camera head, including electronic viewfinder and a 4:1 zoom lens, weighs less than seven pounds.

Under continuous operation, the camera will operate for one hour on a single battery charge. The converter/charger (supplied with camera) allows camera to operate in either an AC or DC mode.

The Magnavox Chromavue 440 Portable Color Television Camera, including electronic viewfinder, 4:1 zoom lens, self-contained microphone, carrying case, battery and battery charger, is priced at $2,750.

This revolutionary new product is being marketed by Magnavox Video Systems, a division of The Magnavox Consumer Company, and will be available the first quarter of 1974.



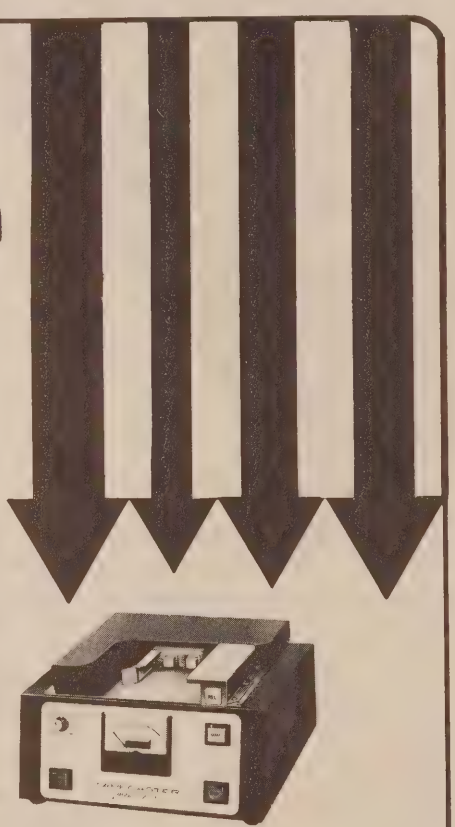
MORE INFO? CIRCLE SERVICE CARD ITEM 78.


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NEW X-700RP

- Automatic deck
- Precision adjustable head bracket
- Heavy–duty air–damped solenoid

NET PRICE $550.00



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MORE INFO? CIRCLE SERVICE CARD ITEM 77.

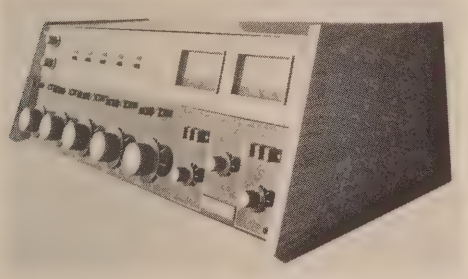

Broadcast Electronics, Inc., announces the introduction of a full line of Spotmaster[R] audio consoles developed to satisfy the most discriminating broadcaster and sound man. An important feature of these new Spotmaster consoles is versatility—allowing the broadcaster to change program formats without making his console obsolete. Flexibility is en-

# new products

hanced by high and low level inputs for all mixing channels, identical program and audition outputs, and separate mono matrix outputs in stereo consoles.

The Spotmaster console product line consists of nine models—a four-channel monophonic console, two five-channel monophonic consoles, two five-channel stereo consoles, two eight-channel headphone driver amplifiers, and cue amplifiers with internal cue speaker. All five and eight-channel models feature electronic switching to mixing channels with FET's. Construction is fully solid-state with integral power supplies and plug-in modular electronics.

For additional information contact Melton J. Black, Jr., Broadcast Electronics, Inc., 8810 Brookville Road, Silver Spring, Md. 20910, telephone 301—588-4983.



MORE INFO? CIRCLE SERVICE CARD ITEM 79.

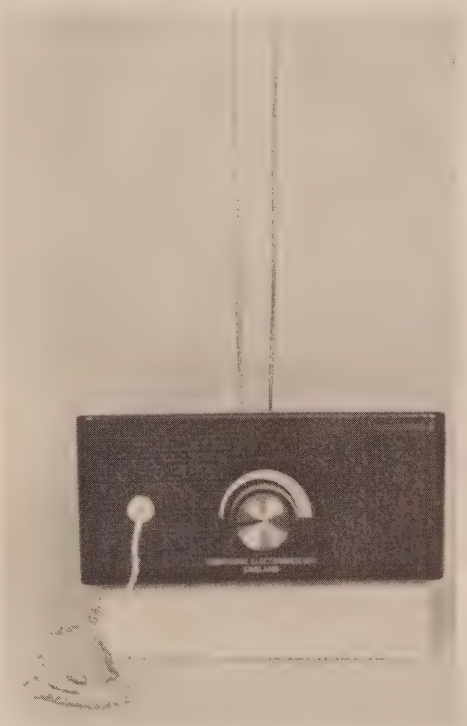
*

Radio signals from all over the world can be picked up on a simple crystal set designed for shortwave reception that costs only $10 including postage from Britain. Using neither main nor battery electrical supply, the DX Crystal Set is powered solely by the incoming signal without amplification.

The manufacturer reports that Peking, Moscow, BBC World Service, Prague, Monte Carlo, Cairo and South Africa are among the broadcasting stations that can be received with varying degrees of fading according to aerial location and propagation conditions.

The set consists basically of a germanium diode and a variable capacitor, with two connections and an earth lead to an indoor antenna which also forms the tuned circuit. The antenna, a 15' long double loop of heavy gauge aluminum wire, covers the 49m wave band and part of the 41m band. A progressively narrowing semi-circular scale allows simple tuning over other shortwave bands to be carried out. To improve reception, a self-supporting semi-directional antenna can be easily constructed from the same type of aluminum wire.

The DX set is housed within a polystyrene case with a matching glossy black and silver front and weighs less than 12 oz.



MORE INFO? CIRCLE SERVICE CARD ITEM 80.

Overall dimensions, including the folding antenna, are 5½" by 4½" by 2½".

The firm will welcome US customer inquiries. British manufacturer: Partridge Electronics Ltd. (Mr. G. A. Partridge, Managing Director), Broadstairs, Kent CT10 1LD, England. Telephone: Thanet 62535.

*

New reel-to-reel tape machines from International Tapetronics Corporation incorporating features most wanted by broadcasters. Examples: motion sensing, multi-function edit mode, automatic tape listers, TTL logic circuitry, capability of handling dissimilar size reels, selective play/record synchronization, 10½" or 14" reels, 3¾ - 7½ IPS or 7½ - 15 IPS. Sold with 30-day guarantee of satisfaction.



MORE INFO? CIRCLE SERVICE CARD ITEM 81.


"8" CHANNEL AUDIO CONTROL

consoles

see us at NAB / 74 booth 201

B-800 series
the new leader in audio console design—a plug-in modular system lets YOU choose your inputs—models for every operating mode . . . monaural, stereo single or dual channel and simulcast



McMartin

McMartin Industries Inc., 4500 South Seventy-sixth Street
Omaha, Nebraska 68127 Phone (402) 331-2000

MORE INFO? CIRCLE SERVICE CARD ITEM 82.

# Buy the best at any cost– even if it costs you less!

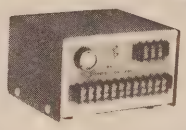
**Broadcast and audio engineers around the nation have chosen Ramko products on performance specs alone. Then were pleasantly surprised at our low, low prices.**

**Compare Ramko performance yourself. Free 10-day evaluation period and 2-year warranty guarantee you get the best.**



**TURNTABLE PREAMPS**
**MP-8 $72 (Mono) SP-8 $114 (Stereo)**

**Outstanding sensitivity and incomparable reproduction.** RIAA/NAB equalized ±1db. 0.5mv sensitivity (internally adjustable) at 1kHz for +4dbm out. +20dbm out max. Balanced 125/600 ohm outputs. −73db S/N referenced to 10mv @ 1kHz. 0.075% or less distortion. External terminals for brilliance, rolloff or RIAA equalization. 140mv @ 1kHz headroom. Internal power supply. MP-8 Mono, SP-8 Stereo. Tabletop or bracket mount. Shipping weight 4½ lbs.



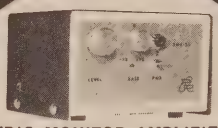
**DISTRIBUTION AMPLIFIERS DA-6 $109**
**(Rack Mount Available)**

**Individual output amps provide maximum isolation.** ±0.5db response, 10Hz to 20kHz. 26db gain. Balanced bridging or matching input. Six balanced 600 ohm outputs. +20dbm out max. Output level control. 0.1% or less distortion. Internal power supply. Tabletop or bracket mount. Shipping weight 4 lbs. Other models feature output metering and up to 32 outputs, $138 to $425.



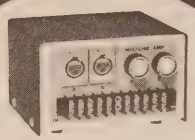
**AUTOMATIC CART & CASSETTE LOADERS**
**ACL-25 $159**
**(Speed & Tone Sense Options Available)**

**At last automatic precision winding at a price you can afford!** Eliminates guesswork because dials set tape length to the second. The exact amount of tape is fed onto the cart or cassette, then it is shut off automatically. Exclusive torsion control for proper tape pack and winding of various hub sizes. TTL digital control circuitry. With speed or tone sense options, $266 to $350. Shipping weight 30 lbs.



**STUDIO MONITOR AMPLIFIERS**
**SMA-50 $105**
**(Rack Mount, Mono & Stereo Options)**

**Exceptional reproduction! Internal muting.** ±1db response, 20Hz to 40kHz. 25w music power, 50w instantaneous peak power, 15w rms. Hum and noise, −65db below rated output. Distortion less than 1% at 15w rms; typically below 0.25% at less than full power. Load impedance, 4, 8, 16 ohms; input balanced bridging, 100kohms. Variable base contour. Internal overload protection. Internal power supply. Tabletop or bracket mount. Rack units, $128 to $169. Shipping wt. 6 lbs.



**MIC/LINE AMPLIFIERS**
**MLA-1 $84 (Mono)**
**MLA-2 $112 (Stereo or Dual Mono)**

**Dual function utility amps.** Inputs for mic and/or line. ±0.5db response, 10Hz to 20kHz. Mic input −65db for +4dbm out. Balanced inputs on high-level and mic channels. Balanced 600 ohm out. +20dbm out max. 0.1% or less distortion. Internal power supply. Tabletop or bracket mount. Shipping weight 4 lbs.



**COLLIMETERS**
**(Precision Tape Head & Guide Alignment)**
**Standard, C-II $15 Multi-Cart, C-IV $19**

**A Ramko exclusive!** Designed by Ramko to speed up tape head and guide alignment on all cart machines. Now used by more than 5,000 engineers. Unique combination of optical and electro-sensing elements allows you to precisely adjust Height, Zenith, and Azimuth on all cartridge machines.

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MORE INFO? CIRCLE SERVICE CARD ITEM 83.


# new products

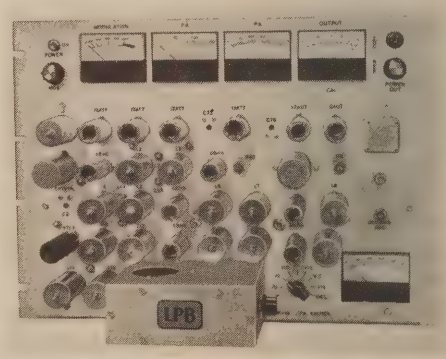
The FM 10, 10 Watt FM Transmitter, has been announced for immediate delivery by LPB Inc. This transmitter, designed specifically for the educational FM broadcaster, utilizes only 13¾" of space in a standard 19" ETA relay rack. Price, including separate power supply module for bottom of rack mounting, is $1,095 FOB, Frazer, Pa.

The FM 10 includes the following features: (1) Superior frequency response coupled with low residual XMTR noise and ultra low distortion. (2) Conservative components for continuous trouble-free operation. (3) Full metering including power and modulation. (4) Capability of stereo operation. (6) Regulated power supply.

In addition, the center frequency is independent of the modulation process being controlled by a highly stable vacuum crystal exceeding FCC frequency stability requirements. Harmonic filtering reduces all harmonics at least 80dB below the fundamental.

The FM 10 is FCC Type Accepted and is delivered tuned and factory tested to the specific customer center frequency requirement. It is stereo ready requiring only the addition of the matching SG 1D Stereo Generator ($1,295.00).

LPB Inc., located at 520 Lincoln Highway, Frazer, Pa., also manufactures and distributes a complete line of audio equipment for the broadcasting, CATV, CCTV and recording industries.



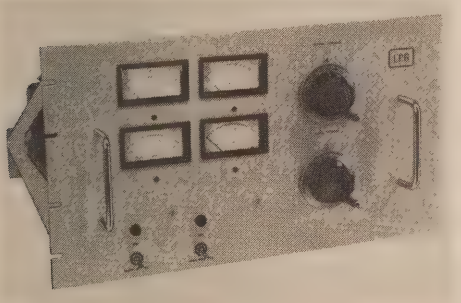

MORE INFO? CIRCLE SERVICE CARD ITEM 84.

# new products

LPB Inc. announces the immediate availability of their 50D 50-Watt AM transmitter, earlier models of which have been used by Armed Forces Radio and college broadcasters for many years. The 50D version utilizes a broadcast quality crystal and all other refinements to meet a proof of performance and the other requirements of Part 73 use as an auxiliary transmitter. (The FCC has no provision for considering the issuance of Type Acceptance on a 50-watt transmitter.)

The LPB 50D is ideally suited for the new 50-watt pre-sunrise authorization or as an auxiliary transmitter. Total price is $1,495, f.o.b. Frazer, Pa., via motor freight. Delivery is 60 to 90 days from receipt of order.

LPB, Inc., located at 520 Lincoln Highway, Frazer, Pa. 19355, is a manufacturer and distributor of audio equipment to the broadcasting, CATV, CCTV and recording industries.



MORE INFO? CIRCLE SERVICE CARD ITEM 85.

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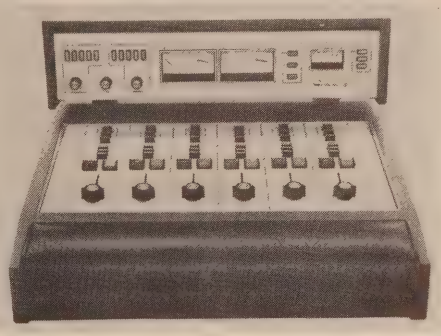
The Centurion Series of custom consoles by Sparta has undergone further development and operational testing since introduction of the Centurion II stereo (quadraphonic capable) 12-mixer version at NAB 1973.

A monoaural 12-mixer version, the Centurion I, will be introduced at NAB 1974, as will six-mixer mono (Centurion III) and six-mixer stereo (Centurion IV) models.

Six-mixer mono or stereo extender panels have also been devised for the Centurion Series, giving up to 18-mixer capacity in a single system.

In every model similar options are available: slide or rotary attenuators, interchangeable mixer modules, digital clock, and others. Centurion Series feature silent operation through electronic pushbutton switching, noticeable lack of wiring harness due to motherboard-type construction, ease of changing console format through replaceable or additional mixer modules.

Cabinet finish is walnut-grain laminated plastic, with Naugahyde armrest, and light smoke and black painted surfaces.



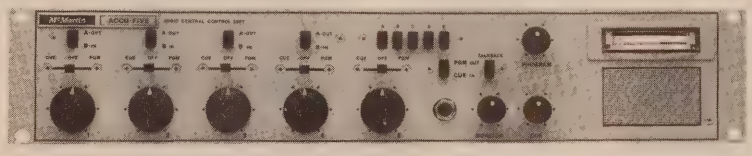
MORE INFO? CIRCLE SERVICE CARD ITEM 86.

The TR-E4 Special Purpose FM/SCA Receiver is designed primarily for use by the blind and other visually handicapped to receive special purpose programming—such as the Radio Talking Book programs that are broadcast on the semi-private SCA subchannel of an FM station. The TR-E4 is a crystal controlled single channel receiver that receives only the special program and features simple go/no go operation.

The TR-E4 also finds application in programs of special SCA programming to minority and foreign language audiences.

User convenience is highlighted in the design of the TR-E4 with a telescopic and fully rotatable whip antenna, built-in amplifier and speaker, and a headphone jack for private listening. A rugged metal case is provided for long term durability, and the unit is decorator finished in a cool beige, with a complementary green/black grille cloth.


accu-five consoles



versatile 5 mixer 3½" rack mount console
5 microphone mixers—13 inputs
mixers switchable to balanced high level
monitor, cue and talkback all standard
speaker muting for control room and studio

*from the "FULL CHOICE" line*

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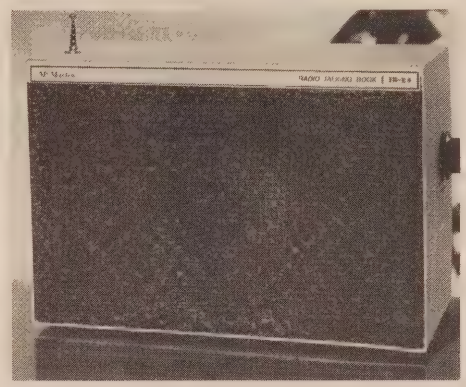
# new products

TR-E4 units are economical for supply to or purchase by the visually or other handicapped persons who can benefit from special programming. Single unit price is $80.

The TR-E4 is listed by Underwriters Laboratories, assuring that the TR-E4 has the safety necessary for use by the specialized user, and is certified by the FCC, assuring that the TR-E4 is free of possibly harmful radiation.

McMartin Industries is the pioneer company in SCA receivers, and has been innovative and responsive to the needs of the special purpose listener. The TR-E4 is a new generation of McMartin Special Purpose receivers, and these receivers are in service in special programs for the visually handicapped in major cities across the country.

McMartin Industries, Inc., is a leading manufacturer of broadcast, engineered sound, and FM/SCA sound equipment. The company's products include AM and FM broadcast transmitters, AM/FM/TV frequency and modulation monitors, and audio consoles for broadcast, FM/SCA receivers, and power and universal amplifiers and accessories for commercial, professional, and defense applications.



MORE INFO? CIRCLE SERVICE CARD ITEM 88.





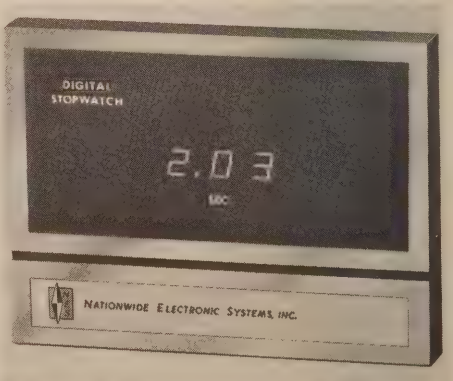
MORE INFO? CIRCLE SERVICE CARD ITEM 89.


The Slimline Digital Stopwatch is a compact panel-mounting instrument for measuring elapsed time intervals from hours down to microseconds. It features a bright light-emitting diode display, data outputs, and remote control inputs. Manual controls are hidden under a snap-in panel to prevent tampering. The cast metal case is only 9/16" thick and requires no space behind the panel.

The Slimline Stopwatch is suitable for timing communications traffic, either under manual control at a communications center or under automatic control in a large system. It can be used for traffic studies and in toll recording equipment. The thin case makes it ideal for mobile and portable equipment.

Data outputs are parallel 1248 Binary-coded decimal (BCD), TTL/DTL compatible, and a read strobe is provided to indicate the validity of data at the outputs. The remote control inputs for start, stop, and reset are also TTL/DTL compatible. Units shipped after February 1 incorporate the new MAN-72 LED display with a .3" character height and wide segment bars. The stopwatch operates from 5VDC power; line frequency time base models require 60Hz reference (50Hz optional). Power supplies for operation from 120VAC or 12VDC are available.

There are 60 models available with line frequency or internal crystal time base and time ranges from 100 hours down to microseconds. Prices range from $208 to $286; FOB Streamwood, Ill. Delivery about three to four weeks. For further information, contact Nationwide Electronic Systems, 1536 Brandy Parkway, Streamwood, Ill. 60103.




MORE INFO? CIRCLE SERVICE CARD ITEM 90.

# WOMEN'S SPORTS RATE AIR TIME

Women athletes of the university, stand up and be counted. Now sit down and listen to the good news.

Someone of the opposite sex has started a sports program designed just for women.

Denny Castiglione, a former sportscaster for the campus radio station, WFAL, is turning his microphone around. He is the new women's sportscaster for the same organization–he only switched seats.

Castiglione abandoned his regular sports show for a revolutionary idea of total women sports highlights. The feedback has been enthusiastic.

"I know a lot of girls on campus who expressed their dissatisfaction for the lack of publicity and facilties for women athletics," said Castiglione. "I have the idea a thought and took a chance with a new sports program just for women–and it is catching on quick."

Castiglione said to his knowledge, he is the only sportscaster in the Midwest to give total limelight to the woman athlete, and he said he might be the only one in the nation, "but that would be hard to prove."

"At first, others at the station saw the idea as a big joke but now they are looking at the show with a little different perspective," he said. "The girls need every break they can get to get publicity. When it comes to sports in general, they get the shaft.

"I'm not against men's sports or anything, it is just that women's athletics has not had much of a say and the girls were getting kind of mad."

A former six-time letterman in football, wrestling and basketball at Bedford Chanel High School (Cleveland suburb), Castiglione works three to five hours a day writing, visiting all the women's practices and preparing a five-minute broadcast.

"I broadcast at 8:30 p.m. every Monday and Thursday night, with a summary of the week's women's sports news, scores, highlights and interviews," he said.

Castiglione said he doesn't believe in giving athletes (men or women) "free rides," or any other name they hide full scholarships behind. He said he prefers academic grants over athletic grants.

For the women, he would first like to see recognition, then better facilities which he said will not be seen in the near future.

Castiglione is wild about the whole idea, and is optimistic about making it a complete success on campus.

"I want to shine a little light on the subject and wake people up to women's athletics. If we can get time sold, we plan to broadcast two women's basketball games," he said.

With favorable response received after two weeks of its inception, the Castiglione Report might wake students up to the talent which looms in women athletes.


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We offer every basic sound effect your productions need.

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SOUND EFFECTS

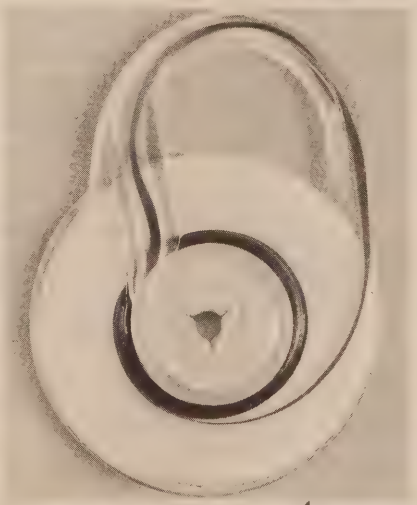
MORE INFO? CIRCLE SERVICE CARD ITEM 91.

TAPECASTER

CARTRIDGE RE-LOADS

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HOT LINE
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800 638-0977
PLEASE USE OUR REGULAR NUMBER FOR SERVICE AND TECHNICAL INFORMATION

REPLACEMENT TAPE AND HUB IN MOST NAB CARTRIDGES



PRICE LIST

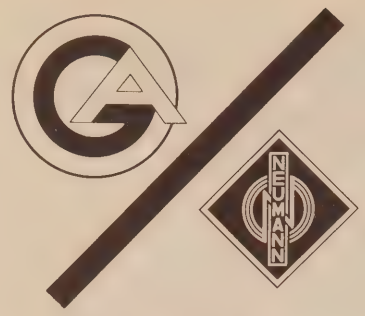
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|---|---|
| 40 SEC | $ .80 |
| 70 SEC | .85 |
| 100 SEC | .90 |
| 2½ MIN | 1.15 |
| 3½ MIN | 1.25 |
| 5½ MIN | 1.50 |
| 10½ MIN | 2.25 |

MINIMUM ORDER (ASSORTED) $10.00

DIRECTIONS
REMOVE OLD HUB FROM CARTRIDGE AND DISCARD
INSERT NEW HUB AND REASSEMBLE CARTRIDGE

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Box 662 • 12326 Wilkins Avenue, Rockville Maryland 20851 Area Code 301 881-8888

MORE INFO? CIRCLE SERVICE CARD ITEM 92.




## THE TRUTH ABOUT PATTERNS

Microphones may be classified into pressure and pressure-gradient transducers. The former produce non-directional, while the latter include *all* directional patterns. It is true that all of the switchable characteristic microphones also have an omni-directional pattern position, but it is formed through the electrical combination of two cardioids and therefore largely behaves like a directional microphone.

As one approaches a pressure (omni) microphone to within close proximity, the effective impression is "it gets louder", while the same movement in front of a directional mike produces the additional impression "it comes closer". There will be many situations in which one will not want to neglect this effect.

Aside from that, *only* directional microphones can have parallel running frequency response curves up to the highest frequencies in both a diffuse and a direct sound field. In a diffuse sound field, the microphone receives sound evenly from all directions, while in a direct (free) sound field, it comes predominantly from on axis. Pressure transducers of the usual studio size will *always* drop their high frequency response when the distance between the sound source and the microphone is increased. For very small distances, the directionality of a microphone is of no significance. The choice, therefore, will largely depend on whether eliminating bass boost, ensuing preamp overload and popping are the paramount considerations, in which case you must use an omni, or whether it is desirable that a vocalist's change in his microphone distance becomes fully audible, making the recording more dynamic and realistic, in which case a directional microphone must be selected.

All NEUMANN microphones are designed for only one optimum level of quality. It's been that way for over 40 years. The 12 different models with as many different prices are each aimed at serving a specific purpose. We'll be happy to advise you on yours. Call on us.

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# COMMENTS

As you may have already noticed, the annual IBS convention will be held April 5-7 in New York City. Since you've already been given the standard information about how it's going to be bigger and better than ever before, and how every person who is a member of Iota Beta Sigma, or Intercollegiate Broadcasting System, Inc., or works in a college radio station, or even lives next door to a college radio station, should come, it might be wise to mention at this point how you should get there.

There are rumors out here in Oklahoma that some of you on the east and west coasts are having some sort of problem getting gasoline. It's also being said that even the airlines are having trouble getting fuel. (We don't get airline service in Oklahoma, you know. You have to land in Dallas or Wichita and take a covered wagon train into the state.)

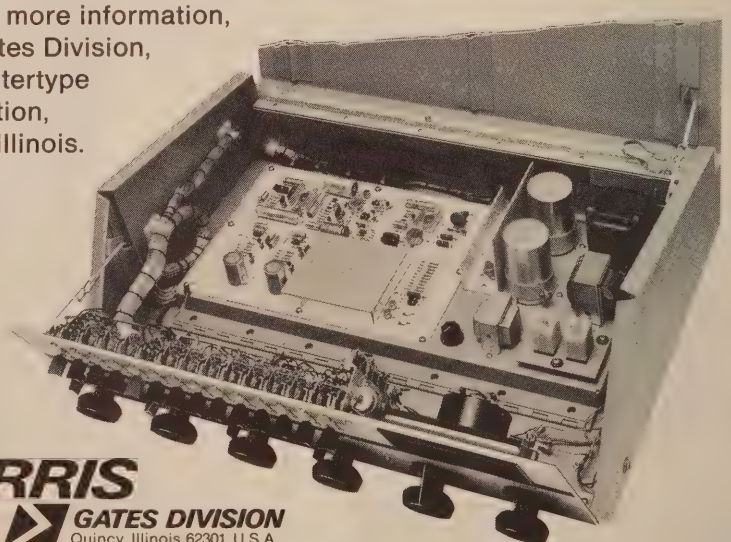
If you can't get airline reservations, or gas station reservations, for that matter, we'd like to suggest that you take the train. Or even a carpool. Not only will it save you gas, it'll also cut down on your basic air pollution. (Check your PSA book to see what Woodsy Owl says about pollution.) And, it'll leave you with more money to spend on porno books in Times Square.


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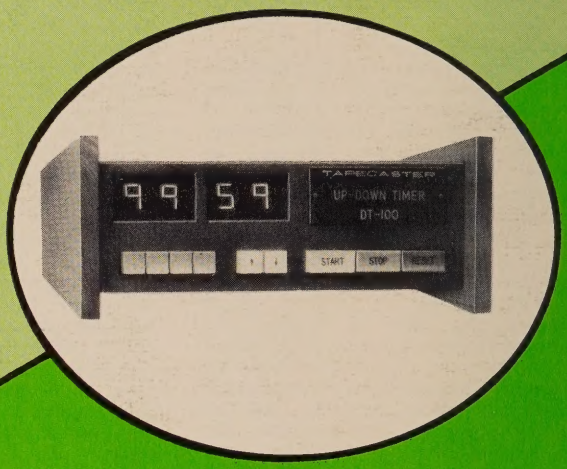

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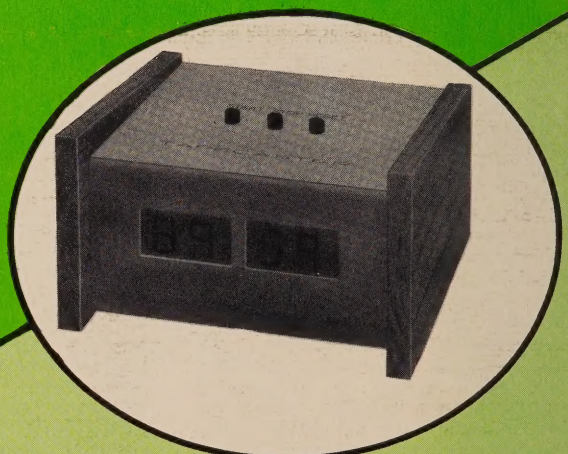



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